

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
 Organization
 International Bureau



(43) International Publication Date
 11 March 2004 (11.03.2004)

PCT

(10) International Publication Number
WO 2004/020999 A1

(51) International Patent Classification⁷: **G01N 33/53**,
 C12N 15/85, 15/86, A61K 48/00

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(21) International Application Number:
 PCT/US2002/034987

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(22) International Filing Date: 30 October 2002 (30.10.2002)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
 AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
 CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
 MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
 SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
 VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
 PCT/US02/27836 30 August 2002 (30.08.2002) US

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(84) Designated States (*regional*): ARIPO patent (GH, GM,
 KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
 Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
 European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
 ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,
 TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
 GW, ML, MR, NE, SN, TD, TG).

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Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guid-
 ance Notes on Codes and Abbreviations" appearing at the begin-
 ning of each regular issue of the PCT Gazette.*

(54) Title: COMPOSITIONS AND METHODS OF USE OF TARGETING PEPTIDES FOR DIAGNOSIS AND THERAPY OF HUMAN CANCER

(57) Abstract: The present invention concerns compositions comprising and methods of identification and use of targeting peptides selective for cancer tissue, particularly prostate or ovarian cancer tissue. The method may comprise identifying endogenous mimeotopes of such peptides, such as GRP78, IL-11R α and hsp90. Antibodies against such targeting peptides or their mimeotopes may be used for detection, diagnosis and/or staging of prostate or ovarian cancer. In other embodiments, the compositions and methods concern novel type of gene therapy vector, known as adeno-associated phage (AAP). AAP are of use for targeted delivery of therapeutic agents to particular tissues, organs or cell types, such as prostate or ovarian cancer. In still other embodiments, targeting peptides selective for low-grade lipomas may be used for detection, diagnosis and targeted delivery of therapeutic agents.

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